



Form PTO-1449 (Rev. 8-88)	Attorney Docket No. NWN02-002-DIV-US-US	Serial No. 10/671,381
<b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)	Applicant: Chad Mirkin, et al.	
	Filing Date: September 25, 2003	Group: 2881

Examiner Initials*		OTHER ITEMS - NON PATENT LITERATURE DOCUMENTS Include, as applicable: Author, Title, Date, Publisher, Edition or Volume, Pertinent Pages
WPF	C1	Niklaus, F., "Void-Free Full Wafer Adhesive Bonding", presented at MEMS'00, Miyazaki, Japan, Jan. 23-27, 2000, pp. 323-328, Miyazaki, Japan.
WPF	C2	Pierret, Robert F., Semiconductor Device Fundamentals, Table 1.1, (1995), Addison-Wesley, page 4.

Examiner /William Phillip Fletcher III/ //	Date Considered 09/27/2006
---	-------------------------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form PTO-1449 (Rev. 8-88)	Attorney Docket No. NWN01-002-DIV-US	Serial No. 10/671,381
<b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)	Applicant: Chad Mirkin, et al.	
	Filing Date: September 25, 2003	Group: 2881

## U.S. PATENT DOCUMENTS

Examiner Initials*		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
WPF	B1	5,883,387	03/1999	Matsuyama et al.			
WPF	B2	6,156,215	12/2000	Shimada et al.			

## FOREIGN PATENT DOCUMENTS

Examiner Initials*		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
WPF	B3	EP 0786642	07/1997	EP				
WPF	B4	WO99/56176	11/1999	WO				

## OTHER ITEMS - NON PATENT LITERATURE DOCUMENTS

Include, as applicable: Author, Title, Date, Publisher, Edition or Volume, Pertinent Pages

Examiner Initials*		
WPF	B5	Higa, K. et al., "Fabrication of Microcantilever with a Silicon Tip Prepared by Anodization", Japanese Journal of Applied Physics, vol. 37, no. 12B, pp. 7078-7080, (1998).
WPF	B6	International Search Report for Application No. PCT/US2004/015161 dated October 27, 2004.

Examiner /William Phillip Fletcher III/ //	Date Considered 09/27/2006
---	-------------------------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form PTO-1449 (Rev. 8-88)	Attorney Docket No. NWN01-002-DIV-US	Serial No. 10/671,381
<b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)	Applicant: Chad Mirkin, et al.	
	Filing Date: September 25, 2003	Group: <del>2884</del> 1762

## U.S. PATENT DOCUMENTS

Examiner Initial*		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
WPF	A1	6,291,140	09/2001	Andreoli, et al.			
	A2	5,923,637	07/1999	Shimada, et al.			
	A3	5,610,898	03/1997	Takimoto, et al.			
	A4	2004/0007053	01/2004	Lutter, et al.			
✓	A5	2003/0049381	03/2003	Mirkin, et al.			

## OTHER ITEMS - NON PATENT LITERATURE DOCUMENTS

Include, as applicable: Author, Title, Date, Publisher, Edition or Volume, Pertinent Pages

Examiner Initial*		
WPF	A6	Brittain, C., et al., "Soft Lithography and Microfabrication", 1998, Physics World, 11, 31-36.
	A7	Kumar, A., et al., "Patterning Self Assembled Monolayers: Applications in Material Science", 1994, Langmuir, 10, pp. 1498-1511.
	A8	Lopez, G.P., et al., "Fabrication and Imaging of Two-Dimensional Patterns of Proteins Adsorbed on Self-Assembled Monolayers by Scanning Electron Microscopy", 1993, Journal of American Chemical Society, 115, pp. 10774-10781.
	A9	Branch, D.W., et al., "Microstamp Patterns of Biomolecules for High-Resolution Neuronal Networks", 1998, Medical and Biological Engineering and Computing, vol. 36, pp. 135-141.
	A10	Marzolin, C., et al., "Patterning of a Polysiloxane Precursor to Silicate Glasses by Microcontact Printing", 1998, Thin Solid Films, 315, pp. 9-12.
	A11	Xia, Y. et al., "Soft Lithography", 1998, Annual Review of Material Science, 28, pp. 153-84.
	A12	K. Ryu, et al., "Precision Patterning of PDMS Thin Films: A New Fabrication Method and Its Applications", Sixth International Symposium on Micro Total Analysis System (mTAS), Nara, Japan, 3-7 November 2002
	A13	Libiouille, L., et al., "Contact-Inking for Microcontact Printing of Alkanethiols on Gold", 1999, Langmuir, 15, pp. 300-304.
	A14	Encyclopedia of Chemical Technology, Volume 14, Kirk-Othmer, 1995, pp. 677-709.
	A15	Khoo, M., et al., "Micro Magnetic Silicone Elastomer Membrane Actuator", 2001, Sensors and Actuators, 89(3), pp. 259-266.
✓	A16	Jo, B., et al., "Three-Dimensional Micro-Channel Fabrication in Polydimethylsiloxane (PDMS) Elastomer", 2000, J. MEMS, vol. 9, pp.76-81.

Examiner /William Phillip Fletcher III/ //	Date Considered 09/27/2006
---	-------------------------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

WPF	A17	Hertel, T., et al., "Manipulation of Individual Carbon Nanotubes and Their Interaction with Surfaces", 1998, Journal of Physical Chemistry B, Vol. 102, pp. 910-915.
	A18	Snow, E., et al., "Nanofabrication with Proximal Probes", 1997, Proceedings of the IEEE, vol. 85, pp. 601-611.
	A19	Wilson, D.L., et al., "Surface Organization and Nanopatterning of Collagen by Dip-Pen Nanolithography", 2001, PNAS, vol. 98, pp. 13660-13664.
	A20	Belaubre, P., et al., "Fabrication of Biological Microarrays Using Microcantilevers", 2003, Applied Physics Letters, vol. 82, pp. 3122-3124.
	A21	Lutwyche, M., et al., "5x5 2D AFM Cantilever Arrays A First Step Towards A Terabit Storage Device", 1999, Sensors and Actuators A: Physical, vol. 73, pp. 89-94.
	A22	Vettiger, P., et al., "Ultrahigh Density, High-data-rate NEMS-based AFM Storage System", 1999, Microelectronic Engineering, vol. 46, pp. 11-17.
	A23	Cooper, E.B., et al., "Terabit-Per-Square-Inch Data Storage With the Atomic Force Microscope", 1999, Applied Physics Letters, vol. 75, pp. 3566-3568.
	A24	Piner, R.D., et al., "Dip-Pen' Nanolithography", 1999, Science, vol. 283, pp. 661-663.
	A25	Wu, G., et al., "Origin of Nanomechanical Cantilever Motion Generated from Biomolecular Interactions", 2001, Proceedings of the National Academy of Sciences, vol. 98, pp. 1560-1564.
	A26	Zhang, M., et al., "A MEMS Nanoplotter with High-Density Parallel Dip-Pen Nanolithography Probe Arrays", 2002, Journal of Nanotechnology, vol. 13, pp. 212-217.
	A27	Chow, E.M., et al., "Characterization of a Two-Dimensional Cantilever Array with Through-Wafer Electrical Interconnects", 2002, Applied Physics Letters, vol. 80, pp. 664-666.
	A28	Bullen, D., et al., "Micromachined Arrayed Dip Pen Nanolithography (DPN) Probes for Sub-100 nm Direct Chemistry Patterning", presented at 16 <sup>th</sup> International Conference on Micro Electro Mechanical Systems (MEMS), Kyoto, Japan, 2003.
	A29	Minne, S.C., et al., "Parallel Atomic Force Microscopy Using Cantilevers with Integrated Piezoresistive Sensors and Integrated Piezoelectric Actuators", 1995, Applied Physics Letters, vol. 67, pp. 3918-3920.
	A30	Liu, C., et al., "Mass-Productible Monolithic Silicon Probes for Scanning Probe Microscopes", 1998, Sensors and Actuators A: Physical, vol. 71, pp. 233-237.
	A31	Petersen, K.E., "Silicon As A Mechanical Material" 1982, Proceedings of the IEEE, vol. 70, pp. 420-457.
	A32	Minne, S.C., et al., "Centimeter Scale Atomic Force Microscope Imaging and Lithography", 1998, Applied Physics Letters, vol. 73, pp. 1742-1744.
	A33	Bullen, D., et al., "Thermo-Mechanical Optimization of Thermally Actuated Cantilever Beam Array" July 2002, Proc. SPIE Vol. 4700, Smart Structures and Materials 2002: Smart Electronics, MEMS, and Nanotechnology, pp. 288-295; with separate abstract.
	A34	Wang, X., et al., "Scanning Probe with Elastomeric (PDMS) Tip for Scanning Probe Microcontact Printing (SP-uCP)", presented at the 12 <sup>th</sup> International Conference on Solid-State Sensors, Actuators and Microsystems, Boston, MA, June 8-12, 2003.
↓	A35	Wang, X., et al., "Scanning Probe Contact Printing", 2003, Langmuir, Vol. 19, pp. 8951-8955.

/William Phillip Fletcher III/ //

09/27/2006